

INTERACTIVE PROGRAM GUIDE  
WITH GRAPHIC PROGRAM LISTINGS

Cross Reference To Related Application

This application claims the benefit of United  
5 States Provisional application No. 60/174,443, filed  
January 4, 2000, which is hereby incorporated by  
reference herein in its entirety.

Background of the Invention

This invention relates to electronic program  
10 guides, and more particularly, to promotional  
techniques for program guides.

Electronic program guides are used to provide  
program listings information to television viewers.  
Program listings information may include program  
15 titles, scheduled broadcast times and channels, program  
descriptions, etc.

One form of electronic program guide is the  
passive television program guide. Passive television  
program guides, such as the TV Guide Channel, are  
20 typically provided by cable system head-ends or other  
television distribution facilities on a dedicated  
television channel. Passive program guides may provide  
program listings in the form of an automatically  
scrolling or paged list. Viewers may access the  
25 listings of the passive program guide by tuning to the

appropriate dedicated television channel with a standard television or set-top box.

Another form of electronic program guide is the interactive television program guide. Interactive television program guides, such as TV Guide Interactive and Gemstar Guide Plus, are typically implemented on set-top boxes or other user television equipment with suitable processing circuitry. Users typically interact with such interactive television program guides using a remote control. Features that are often offered by interactive television program guides include the capability to set favorite channels or programs, the capability to set reminders for programs of interest, and the ability to establish parental controls.

Yet another form of electronic program guide is the on-line television program guide. On-line television program guides, such as TV Guide Online, allow users to access program listings information over the Internet using a web browser or similar interface. When using these guides, users frequently may click on program titles within the guides to view additional information such as a detailed program description.

All of these variations of electronic program guides provide program listings information to their viewers or users in the form of text. This can be seen in passive products such as the TV Guide Channel or Americast's passive program guide, both of which feature a text-based scrolling grid of listings. Text-based listings are also seen in Internet guides such as the GIST on-line program guide and the Click TV on-line program guide. Text-based listings are also seen in interactive program guides such as Starsight and Americast interactive program guides.

Nevertheless, there is a need for a more aesthetically pleasing and eye-catching methods for presenting electronic program guides. Preferably these methods would incorporate program listings that are  
5 easy to identify and that indicate relationships between sponsors and celebrities of those programs.

It is therefore an object of this invention to provide an electronic program guide that presents program listings as graphical images that can meet  
10 these needs.

#### Summary of the Invention

This and other objects of the invention are accomplished in accordance with the principles of the present invention by providing electronic program  
15 guides in which program listings may be graphically presented and in which sponsors and celebrities of those programs may be identified. The electronic programs guide may be passive television program guides, interactive television program guides, and/or  
20 on-line television program guides. Television show text information, information icons, graphic logos and/or trademarks, celebrity images, affiliation indicators, and advertisements may be present in the program listings to enhance the electronic program  
25 guides.

Further features of the invention, its nature and various advantages will be more apparent from the accompanying drawings and the following detailed description of the preferred embodiments.

#### Brief Description of the Drawings

  
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FIG. 1 is a schematic diagram of program guide provider equipment, a communication link, and

program guide display equipment that may be used in accordance with some embodiments of the present invention.

FIG. 2 is an illustration of an electronic  
5 program guide display screen that may be presented in accordance with some embodiments of the present invention.

FIG. 3 is an illustration of an electronic  
program guide display screen showing text information  
10 and information icons that may be presented in accordance with some embodiments of the present invention.

FIG. 4 is an illustration of an electronic  
program guide display screen showing an information  
15 tray that may be presented in accordance with some embodiments of the present invention.

FIG. 5 is an illustration of an electronic  
program guide display screen showing program  
information with colored backgrounds that may be  
20 presented in accordance with some embodiments of the present invention.

FIG. 6 is an illustration of an electronic  
program guide display screen showing program logos and  
affiliation indicators that may be presented in  
25 accordance with some embodiments of the present invention.

FIG. 7 is an illustration of an electronic  
program guide display screen showing celebrity images  
that may be presented in accordance with some  
30 embodiments of the present invention.

FIG. 8 is an illustration of another  
electronic program guide display screen showing  
celebrity images that may be presented in accordance  
with some embodiments of the present invention.

FIG. 9 is an illustration of an electronic program guide display screen showing affiliation indicators and an advertisement button that may be presented in accordance with some embodiments of the present invention.

FIG. 10 is an illustration of an electronic program guide display screen showing promotion buttons that may be presented in accordance with some embodiments of the present invention.

FIG. 11 is an illustration of an electronic program guide display screen showing a promotion button and an advertising button that may be presented in accordance with some embodiments of the present invention.

FIG. 12 is an illustration of an electronic program guide display screen showing a promotion button that may be presented in accordance with some embodiments of the present invention.

#### Detailed Description of the Preferred Embodiments

Turning first to FIG. 1, a system 100 for presenting an electronic program guide is illustrated. System 100 may be used to implement any form of electronic program guide, including a passive television program guide, an interactive television program guide, and an on-line television program guide. As shown, system 100 may include program guide provider equipment 120, a communication link 130, and program guide display equipment 140.

When implemented as a passive television program guide, system 100 may be implemented with equipment 120 being a computer and video generator at a cable head-end, link 130 being a one-way cable television distribution system, and equipment 140 being

a television. Program guide data then may be formatted by the computer, converted to a video signal by the video generator, transmitted through the cable television distribution system, and then received by  
5 and displayed on the television.

When implemented as an interactive television program guide, system 100 may be implemented with equipment 120 being a server at a cable head-end or other location, link 130 being a one-way or two-way  
10 cable television distribution system, and equipment 140 being an advanced set-top box and a television. Program guide data may the be transmitted from the server through the cable television distribution system, received by the set-top box, displayed on the  
15 television, and interacted with by a user using a remote control of the set-top box.

When implemented as an on-line television program guide, system 100 may be implemented with equipment 120 being a server, link 130 being a computer  
20 network that may include the Internet, and equipment 140 being a computer that is capable of communicating with the server in equipment 120. Program guide data may then be formed by the server into a web page, transmitted by the server through the computer network  
25 to the computer, displayed on a computer monitor connected to the computer to the user, and interacted with by the user using a mouse and/or keyboard attached to the computer.

Obviously, many variations of suitable  
30 equipment may be used to provide an electronic program guide in accordance with the present invention without departing from the spirit and scope of the invention. For example, the present invention may be implemented in a satellite television system.

Turning to FIG. 2, one embodiment of an electronic program guide display 200 in accordance with the present invention is illustrated. As shown, program guide display 200 may include a top half 202 and a bottom half 203. Top half 202 may include promotional videos, advertisements, graphics, text, icons, and/or any other suitable content. Bottom half 203 may include a time bar 204 that indicates the current time and time slots for television programs, and an information area 206 that indicates information relating to television programs that are on in those time slots. The content provided in top half 202 of display 200 may or may not correspond to the information relating to television programs that is provided in bottom half 203 of display 200.

As illustrated in FIG. 3, time bar 204 preferably includes a clock 302 and time slots 304. Time bar 204 may also include a guide provider logo 303 to indicate to the viewer the identity of the provider of the guide. Time slots 304 provide an indication of when programs were playing, are playing, and/or will be playing. Time slots 304 may be implemented in any suitable delineation of time segments. For example, time slots 304 may be implemented in half-hour segments (e.g., one segment may read 8:00, the next may read 8:30, and another may read 9:00). The time slots may also indicate when the times indicated by the time slots are in the past.

As shown, information area 206 may include program listings for the electronic program guide. In some embodiments, the program listing may be displayed as buttons 306. Buttons 306 may include text information pertaining to each program, such as the title of the program, a description of the program,

names of actors in the program, etc, and informational icons that indicate the rating of the program (e.g., PG, G, TV-13, etc.), whether the program is in stereo, whether the program is closed-captioned, whether the program is in Dolby, whether the program is broadcast in High-Definition Television (HDTV), etc. Buttons 306 may be color coded to indicate what category of show each represents. Each button 306 may be aligned with a channel indicator 308 to indicate what channel a corresponding program is on. Each channel indicator 308 may indicate the channel number, call letters, name, logo, and/or any other suitable indicator of the channel indicator. Each channel indicator 308 may also be in a similar style to guide provider logo 303.

Although the program listings are shown herein as being displayed in buttons 306, program listings may be displayed in any suitable graphical element, such as a grid cell.

An information tray 402 may also be included in information area 206 as shown in FIG. 4. Information tray 402 may contain a legend 404 that indicates the scheme used for color-coding buttons 306, if any. For example, legend 404 may indicate that buttons 306 corresponding to sports programs are indicated in green and that buttons 306 corresponding to movies are indicated in red. Thus, as shown in FIG. 5, buttons 502 and 504 would be colored green and button 506 would be colored red. Information tray 402 may also display information such as weather and news 406.

Turning to FIG. 6, a graphical approach to displaying program information in buttons 306 of information area 206 is shown. As illustrated, buttons 306 include graphical elements such as logos and/or



trademarks for the programs identified by the buttons that may be used in addition to or instead of basic text. For example, button 604 contains the graphic logo "F·R·I·E·N·D·S" instead of the basic text

5 "Friends". Similarly, button 606 contains the graphic logo "Sports**Center**" (wherein "Center" is in bold letters) instead of the basic text "SportsCenter" (wherein none of the letters are bold letters). Button 612 contains the graphic logo for "Home Improvement"

10 wherein the words "Home Improvement" are incorporated into a graphic representation of a house rather than simply being presented as ordinary text. By displaying buttons 306 with graphic logos and/or trademarks of the corresponding programs, viewers can more easily

15 identify programs that are of interest to them. For this reason, program providers may be willing to pay to have their programs presented as logos and/or trademarks in the program guide in addition to or instead of basic text.

20 Like buttons 306 with text content, buttons 306 with graphic content may have colored backgrounds to indicate to the viewer what type of program is showing. For example, "F·R·I·E·N·D·S" button 604 may have a yellow background to indicate that it

25 corresponds to a situation comedy (sitcom) or drama. "Sports**Center**" button 606 may be colored green to indicate that it corresponds to sports related programming.

Buttons 306 may also indicate affiliation of

30 programs and/or the program guide with an affiliated entity by providing graphical element affiliation indicators within the buttons. For example, buttons 306 may include one or more affiliation indicators to indicate network affiliation (e.g., ABC, NBC, etc.),

sports team affiliation (e.g., Green Bay Packers, Denver Broncos, New York Yankees, etc.), corporate affiliation (e.g., NFL, NASCAR, National Geographic, etc.), event affiliation (e.g., Super Bowl, Daytona 500, Kentucky Derby, etc.), guide affiliation (e.g., TV Guide, etc.), etc. Affiliation indicators may indicate sponsorship of a program by a sponsor, or may indicate any other affiliation between an entity and a program.

FIG. 6 shows examples buttons 306 with affiliation indicators. Button 608 indicates a network affiliation of the program "News Channel 7" with the ABC Network, and button 610 indicates a corporate affiliation of the program "NFL's Greatest" with the NFL. These are just two possible variations of including affiliation indicators in buttons 306. Other variations could include multiple affiliation indicators in the same button.

Button 306 may also include graphical element celebrity images as shown in FIG. 7. As illustrated, buttons 702, 704, and 706 have images of celebrities in the buttons. Celebrity images on these buttons help viewers identify programs because viewers associate celebrity images with programs. Button 706, for instance, shows the faces of the cast members of the show "Party of Five." As is evident in FIG. 7, the sizes of buttons in the program guides of the present may be any suitable size or shape and need not be of uniform size or shape. As is also evident in FIG. 7, especially from button 704, many features of the invention can be used in the same button. As illustrated, button 704 is a large button, and includes a program logo, an affiliation indicator for a television network affiliation, an affiliation

indicator for a corporate affiliation (possibly a sponsor), text information, and a celebrity image.

Other examples of celebrity images within buttons are shown in FIG. 8. As can be seen, in button 5 802, a program logo, network affiliation indicator, and a celebrity image are all included. Alternatively, as shown in button 804, only a program logo and a celebrity image may be used. As yet another alternative, a program logo may be positioned within a 10 celebrity image as shown in button 806.

By providing logos, affiliation indicators, and celebrity images in buttons, the program guide of the present invention provides increased readability. Because less time is spent reading the program 15 listings, viewers can focus more time looking at other parts of the screen. This is particularly useful because this provides an incentive for companies to advertise in the program guide and/or sponsor programs indicated in buttons 306. In order to provide more 20 space for advertisements, bigger channel buttons may be implemented in the program guide.

Turning to FIG. 9, a large button 902 is shown. As illustrated, button 902 indicates that on the television program "Monday Night Football," the 25 Denver Broncos are playing the Kansas City Chiefs. To help the viewer quickly identify this football game, affiliation indicators 904, 906, and 908 are included in button 902. Indicator 904 indicates that this program is affiliated with the National Football 30 League, and indicators 906 and 908 indicate the logos of the Kansas City Chiefs and Denver Broncos, respectively.

As can also be seen in FIG. 9, button 902 is not of uniform shape in order to facilitate the

inclusion of an advertising button 910. As shown, button 910 includes a "Nike Swoosh" advertising element that may be used to advertise various sporting goods available from Nike, Inc. Because Nike provides  
5 sporting goods, including advertising button 910 with an advertising element near button 902, which shows information for an athletic event, may be an effective advertising mechanism. Advertising elements may be used in any type of button, information tray, and/or  
10 any other portion of the electronic program guides.

Buttons 306 may also include promotional slogans to indicate significant events. Slogans may include phrases such as "Final Episode," "Season Finale," or any other suitable phrase.

15 Turning to FIG. 10, two promotion 1002 and 1004 buttons that may also be used in the electronic program guides of the present invention are shown. As illustrated, buttons 1002 and 1004 are not displayed with a corresponding channel indicator 308 like buttons  
20 306. Because buttons 1002 and 1004 are not displayed with a channel indicator 308, these buttons may be used to promote or advertise any event, goods, service, etc. irrespective of whether the event, goods, or service is a related to a television program. Nevertheless, as  
25 shown, button 1002 is promoting a television program "Ally McBeal." Within button 1002 are a slogan "Don't miss Ally tonight!", a logo "Ally McBeal", an affiliation indicator "FOX", a celebrity image of Calista Flockhart, and text program information "7:00  
30 on FOX". Promotion button 1004, as illustrated, is associated with button 1002, even though button 1004 may be completely independent of button 1002. Button 1004 comprises a affiliation indicator for "TV Guide Online", an text information "Find out more about

Calista at TV Guide online", and a Uniform Resource Locator (URL) for "www.tvguide.com". By selecting the URL in button 1004 when the electronic program guide is implemented as an interactive television program guide  
5 or an online television program guide, the electronic program guide may present a web browser containing the corresponding web page.

Two other forms of promotion buttons are illustrated in FIGS. 11 and 12. As shown in FIG. 11, a  
10 promotion button 1102 may be used to promote an event such as the "Daytona 500". In conjunction with this promotion, button 1102 may also include a slogan "Winston Cup Series premier!", an affiliation indicator "TV Guide Channel", and text information "This  
15 Sunday!". An advertising button 1104 may also be used in conjunction with promotion button 1102. As shown, button 1104 shows the logo for "NASCAR" to advertise "NASCAR" auto racing. By placing advertising button 1104 near promotion button 1102, viewers are aware of  
20 the association of their content.

As shown in FIG. 12, a promotion button 1202 may be used to promote an event such as the "Holyfield VS Lennox" boxing match as indicated by the text information "Holyfield VS Lennox". Also included in  
25 button 1202 is a celebrity image of the two fighters, and more text information indicating that the fight will be aired on "Sat, March 13" at "7:00 PM" and will be "Live on Pay-Per-View".

The concepts shown and discussed in  
30 conjunction with the figures may be used in passive, interactive, and online guides. The arrangements of screen elements shown are merely illustrative. For example, see United States Patent Application No. 09/357,941, filed July 16, 1999 and United States

Patent Application No. 09/354,602, filed July 16, 1999,  
which are hereby incorporated by reference herein in  
their entirety, for examples of arrangements of  
interactive program guides, and United States Patent  
5 Application No. 08/938,028, filed September 18, 1997,  
which is hereby incorporated by reference herein in its  
entirety, for examples of arrangements of elements in  
an online program guide. The screens used in  
accordance with the present invention may or may not be  
10 partitioned into various sections containing, for  
example, program listings, video windows,  
advertisements, logos and screen titles, etc. Program  
listings may be in the form of a grid, a list sorted by  
time, channel, category, alphabetically, or in any  
15 other format.

In the interactive embodiments, the guide may  
allow the user to highlight any individual item and  
select it using a "Select", "Enter", "Ok", or similar  
key. In the online embodiments, the guide may allow  
20 the user to select any individual time by clicking on  
it using a mouse. Selectable items may include any  
button, logo, indicator, text, icon, etc.

Selecting an item may cause the guide to  
perform an action (such as tuning to a program) related  
25 to the item, display additional information related to  
the item, display a menu of options related to the item  
(e.g., watch, remind, lock, favorite, order, other air  
times, etc.), or other function.

The foregoing is merely illustrative of the  
30 principles of this invention and various modifications  
can be made by those skilled in the art without  
departing from the scope and spirit of the invention.